

WHAT IS CLAIMED IS:

1. An electrode for p-type SiC, containing a first electrode material, and a second electrode material of aluminum (Al), said first and second electrode materials exhibiting an
5 eutectic reaction at a temperature of 600°C or lower.

2. An electrode for p-type SiC according to claim 1, wherein said first electrode material is germanium (Ge).

10 3. An electrode for p-type SiC according to claim 2, further containing a third electrode material of titanium (Ti).

4. An electrode for p-type SiC according to claim 1, wherein a layer made of said first electrode material is formed
15 so as to be in contact with p-type SiC.

5. An electrode for p-type SiC, comprising a first layer of germanium (Ge), and a second layer of aluminum (Al), wherein said first and second layers are formed successively
20 on p-type SiC.

6. An electrode for p-type SiC according to claim 5, further comprising a third layer of titanium (Ti) formed between said first and second layers.

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7. An SiC device including p-type SiC, and an electrode for p-type SiC defined in claim 1 and formed on said p-type SiC.

5 8. An SiC device including p-type SiC, and an electrode for p-type SiC defined in claim 2 and formed on said p-type SiC.

10 9. An SiC device including p-type SiC, and an electrode for p-type SiC defined in claim 3 and formed on said p-type SiC.

15 10. An SiC device including p-type SiC, and an electrode for p-type SiC defined in claim 4 and formed on said p-type SiC.

20 11. An SiC device including p-type SiC, and an electrode for p-type SiC defined in claim 5 and formed on said p-type SiC.

12. An SiC device including p-type SiC, and an electrode for p-type SiC defined in claim 6 and formed on said p-type SiC.

25 13. A method of producing an electrode for p-type SiC,

comprising steps of:

cleaning p-type SiC;

forming a first layer of germanium (Ge) on said p-type SiC; and

5 performing a heat treatment.

14. A method of producing an electrode for p-type SiC, comprising steps of:

cleaning p-type SiC;

10 forming a first layer of germanium (Ge) on said p-type SiC;

forming a second layer of aluminum (Al); and
performing a heat treatment.

15 15. A method of producing an electrode for p-type SiC according to claim 14, further comprising a step of forming a third layer of titanium (Ti).

16. A method of producing an electrode for p-type SiC
20 according to claim 15, wherein said first layer of germanium (Ge), said third layer of titanium (Ti) and said second layer of aluminum (Al) are formed successively on said cleaned p-type SiC and subjected to said heat treatment.

25 17. A method of producing an electrode for p-type SiC

according to claim 13, wherein the temperature for said heat treatment is 600°C or lower.

18. A method of producing an electrode for p-type SiC
5 according to claim 14, wherein the temperature for said heat treatment is 600°C or lower.

19. A method of producing an SiC device, including the steps for producing an electrode for p-type SiC according to
10 claim 13.

20. A method of producing an SiC device, including the steps for producing an electrode for p-type SiC according to claim 14.
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19. A method of producing an SiC device, including the steps for producing an electrode for p-type SiC according to claim 15.

20. A method of producing an SiC device, including the steps for producing an electrode for p-type SiC according to claim 16.
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21. A method of producing an SiC device, including the steps for producing an electrode for p-type SiC according to
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claim 17.

22. A method of producing an SiC device, including the steps for producing an electrode for p-type SiC according to

5 claim 18.